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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/964,143

) Art Unit 1617

Applicants: JAMES HUGH McLAUGHLIN

) Examiner:

Filed: September 25, 2001

) Shengjun Wang

For: EMOLLIENT SKIN CONDITIONING CREAM AND METHOD )

Assistant Commissioner of Patents  
U.S. Patent and Trademark Office  
Washington, D.C. 20231

**Affidavit Two Under 37 CFR 1.132**

STATE OF CONNECTICUT )

)

SS: *Woodstock*

COUNTY OF WINDHAM )

)

JAMES HUGH McLAUGHLIN, being of full age and duly sworn according to  
law, deposes and says:

1. I am employed by Crabtree & Evelyn, Ltd., at 102 Peake Brook Road, P.O. 167,  
Woodstock, as a Formulation Chemist. I am the inventor of the invention described and  
claimed in the above-identified patent application.
2. I received a Bachelor of Science Degree in Chemistry from Fairleigh Dickinson University,  
Rutherford, New Jersey, in 1964.
3. My work experience follows:
  - a. 1952 – 1968 – Research & Development Division of Unilever Company; Edgewater,  
New Jersey, as follows: (1) Product Development Chemist in the Process Development  
Group; (2) Creative Product Developer in the New Product Development Group; (3)  
Senior Research Scientist; and (4) New Product Group Section Manager.

- b. 1969 – 1983 - Center For New Product Development, New York, New York, as a New Product Development Chemist and principal.
  - c. 1983 – 1998 – James H. McLaughlin New Products, Inc., Yarmouth Port, Massachusetts, as Chief Chemist and owner.
  - d. 1999 – to date – Crabtree & Evelyn, Ltd., Woodstock, Connecticut, as a Formulation Chemist.
4. I noted that U.S. Patent 6,042,815 (Kellner et al.), the primary reference against the invention set forth in the subject application, teaches at column 2, lines 25 – 63, “Examples of gelling agents which may be used...are sodium, potassium, aluminum, magnesium, or calcium salts of stearic...acids....Preferably...sodium stearate.” Following those teachings, I performed the following experiments:
- a. I prepared a 1000 gram batch of the formulation set forth in Example 1 of Kellner et al. using procedure set forth in said example and the resultant product was a homogeneous, solid stick with a light brown color. A picture of said product is attached to this affidavit as Exhibit A. The continuous phase of the resultant oil-in-water emulsion solid composition represented 66.55% by weight of final stick and consisted of the stated weight percentage of following ingredients: 41.03% of water, 13% of butylene glycol, 3.49% a PEG 20 nonionic surfactant, 0.86% of PPC (a secondary gelling agent for the aqueous phase according column 4, line 14, of Kellner et al.), and a mixture of 0.62% of aluminum stearate and 7.55% of sodium stearate (the primary gelling agents). Further, weight percentage the water/butylene glycol mixture in said continuous aqueous phase calculates to be 81.2%. According to Kellner et al. the dispersed oil phase consisted of, by weight, a mixture of 12.44% of dimethicone and 3.51% of cyclomethicone gelled by

a mixture of 1.5% synthetic wax, 5.70% isostearyl alcohol and 1.5% hydrogenated castor oil and represents 24.65% by weight of resultant composition. The remainder of composition of Example 1 consisted of 8.8% by weight of particulates of which 4.8% by weight was titanium dioxide.

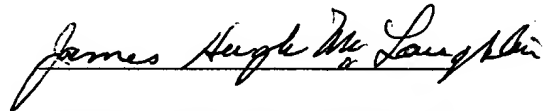
- b. I repeated the experiment outlined in (a) above with calcium stearate substituted for sodium stearate in accordance with said teachings set forth at column 2, lines 24 – 63, of Kellner et al. and the resultant product obtained was an apparently homogeneous, thick liquid with a brown color. A picture of said product is attached to this affidavit as Exhibit B.
- c. I prepared a 1000 gram batch of the formulation set forth in Example 2B of Kellner et al. using procedure set forth in Example 1 of Kellner et al. and the resultant product obtained was a homogeneous, solid stick with a white color. A picture of said stick is attached to this affidavit as Exhibit C. The continuous phase of the resultant oil-in-water emulsion solid composition represented 65.5% by weight of the final stick and consisted of the stated weight percentage of following ingredients: 41% of water, 12% of butylene glycol, 3.5% of a PEG 20 nonionic surfactant, 1.0% of PPC(a secondary gelling agent for the aqueous phase according column 4, line 14, of Kellner et al.) and 8% of sodium stearate (the primary gelling agent). Further, the weight percentage of the water/butylene glycol in said continuous aqueous phase calculates to be 80.9%. According to Kellner et al. the dispersed oil phase consisted of, by weight, 12% dimethicone gelled with 6% isostearyl alcohol and represented 18% by weight of resultant composition. Again, the balance of the composition consisted of 16.5% by

weight of particulates, i.e., with 10% of Uvinol M40 USP sunscreen from BASF and 5% of titanium dioxide representing the bulk of the particulate matter.

- d. I repeated the experiment outlined in (c) above with calcium stearate substituted for sodium stearate in accordance the Kellner et al. disclosure set forth at column 2, lines 24 – 63 and more particularly lines 57 – 60, and the resultant product was a white coagulated solid mass in what appeared to be a clear aqueous liquid, not a solid stick as taught by Kellner et al. A photograph of said product is attached hereto as Exhibit D.
5. Based upon the foregoing experiments and the knowledge of the water solubilities of sodium stearate and calcium stearate that are known to “a person of ordinary skill in relevant art of making cosmetic compositions,” I concluded as follows:
  - a. Reproduction of Examples 1 and 2B of Kellner et al. produced an oil-in-water emulsion solid stick make up (Example 1) and sunscreen (Example 2B) as described by Kellner et al. and as shown in Exhibits A and C attached hereto.
  - b. Reproduction of Examples 1 and 2B of Kellner et al. with calcium stearate substituted for sodium stearate as taught by Kellner et al. at column 2, lines 24 – 63, produced a liquid product as shown in Exhibits B and a clear liquid with a white colored ,coagulated, solid mass therein as shown Exhibit D instead of product in form of a solid stick as taught by Kellner et al.
  - c. The foregoing experiments show that the teaching of Kellner et al. at column 2, lines 24 – 63, that sodium stearate and calcium stearate are equivalents as primary gelling agents in the compositions set forth in Kellner et al. is not true.
  - d. The results in the foregoing experiments are due to the fact that sodium stearate is soluble in the aqueous continuous phase of Kellner’s Examples 1 and 2B and produces a

solid gel; whereas, calcium stearate is insoluble in the aqueous continuous phase thereby apparently producing a liquid dispersion of calcium stearate particles in said aqueous continuous phase in the case of Example 1. In Example 2B, the calcium stearate particles are apparently part of the solid, white, coagulated mass in the clear, aqueous liquid.

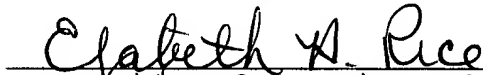
- e. A person of ordinary skill in art of cosmetic compositions also knows the solubility of sodium stearate and calcium stearate in water and, thereby, knows that teaching of Kellner et al. that sodium stearate and calcium stearate are equivalents as gelling agents for an aqueous medium is false and is not to be believed. Further, the foregoing results teach a person of ordinary skill in cosmetic composition art not to use calcium stearate in the water and oil emulsion solid cosmetic compositions of Kellner et al.



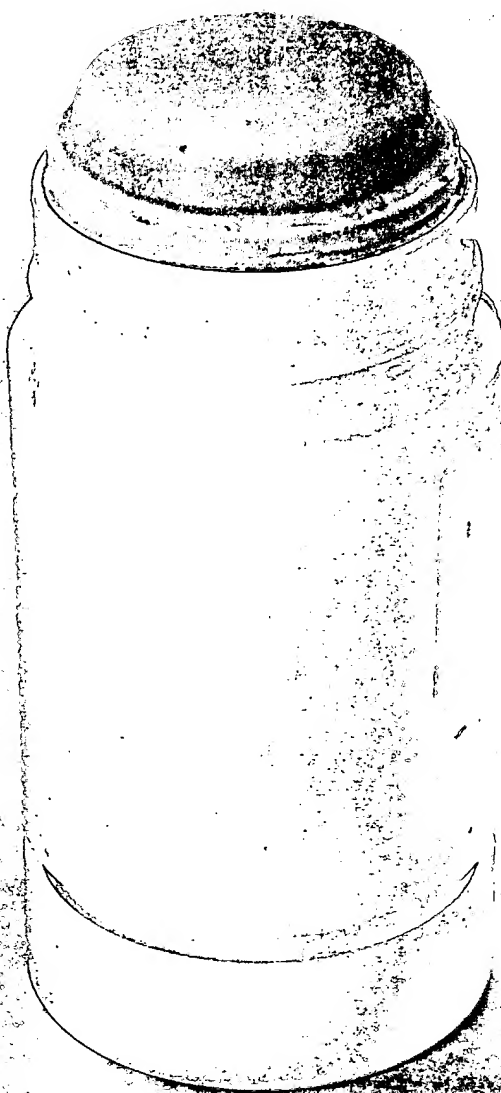
JAMES HUGH McLAUGHLIN

Enc. Exhibits A, B, C and D

Sworn to and subscribed before me  
this 19<sup>th</sup> day of July, 2004.

  
Elizabeth A. Rice, notary Public  
my commission Expires: 9-30-07



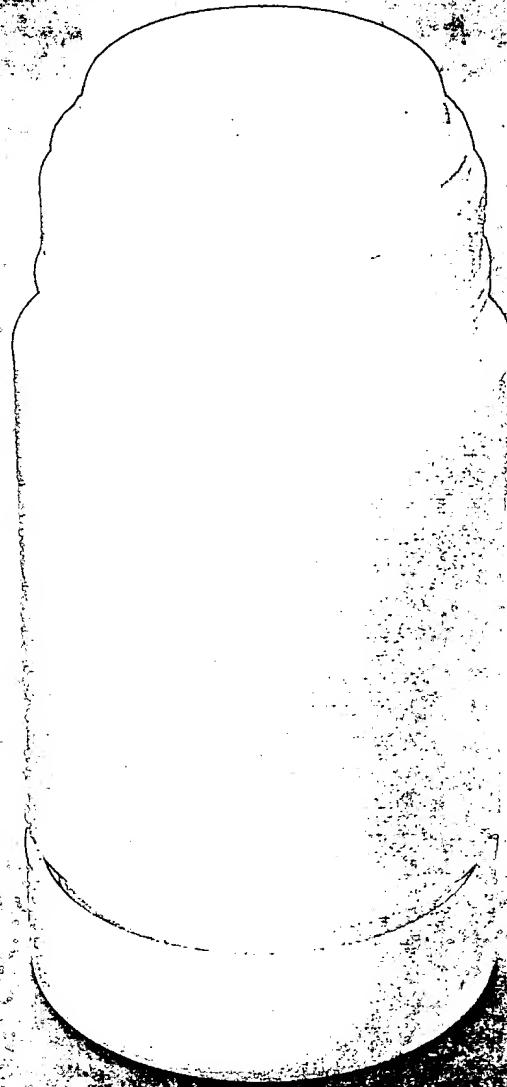


**Exhibit A**



**Exhibit B**





**Exhibit C**



**Exhibit D**